

Title (en)

MOLDED ARTICLE AND METHOD FOR PRODUCING THE SAME

Title (de)

FORMKÖRPER UND VERFAHREN ZUR HERSTELLUNG DESSELBEN

Title (fr)

ARTICLE MOULÉ ET SON PROCÉDÉ DE FABRICATION

Publication

EP 2047983 A1 20090415 (EN)

Application

EP 07790994 A 20070719

Priority

- JP 2007064240 W 20070719
- JP 2006205963 A 20060728
- JP 2006206541 A 20060728
- JP 2006206542 A 20060728

Abstract (en)

Disclosed is a molded article composed of a fiber-reinforced composite material (I) containing a continuous reinforcing fiber and a thermosetting matrix resin, and a thermoplastic resin member (II) which is joined to and integrated with at least a part of the surface of the fiber-reinforced composite material (I) by using a thermoplastic resin (A). The joined surface between the thermoplastic resin (A) and the fiber-reinforced composite material (I) has projections and recesses in the cross-section in the thickness direction of the molded article, and the maximum impregnation depth h of the thermoplastic resin (A) in the fiber-reinforced composite material (I) is not less than 10 µm. The thermoplastic resin (A) has a tensile strength at break of not less than 25 MPa and a tensile elongation at break of not less than 200%. The impact adhesives strength at the joined portion of the fiber-reinforced composite material (I) and the thermoplastic resin member (II) is not less than 3,000 J/m 2.

IPC 8 full level

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CPC (source: EP KR US)

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B29C 66/721 (2013.01 - EP US); **B29C 66/7212** (2013.01 - EP US); **B29C 66/72141** (2013.01 - EP US); **B29C 66/73115** (2013.01 - EP US);
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B29C 66/30321 (2013.01 - EP US); **B29C 66/5346** (2013.01 - EP US); **B29C 66/71** (2013.01 - EP US); **B29C 66/712** (2013.01 - EP US);
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Cited by

WO2012118603A1; US9694520B2; EP3974141A4; EP2806418A4; CN102767471A; EP2463083A3; EP2444221A1; ES2383668A1;
US10398042B2; US8857128B2; US8618415B2; US9782944B2; US10864686B2; US11518138B2; WO2011064436A1; US9925728B2;
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